

What is claimed is:

1. A method for supporting strategic business decision-making comprising:
 - (a) prompting a user for entry of a plurality of input data corresponding to a business decision modeling framework, said input data comprising at least one decision option comprising at least one assumption describing at least one business entity, said assumption comprising at least one attribute, trend, relationship, and/or projected behavior;
 - (b) receiving said input data;
 - (c) simulating a plurality of outcomes under a plurality of scenarios over a period of time based on said input data; and
 - (d) analyzing said plurality of outcomes.
2. A method as claimed in claim 1, further comprising receiving at least one update to the input data supplied in said step (a), said update derived from at least one external source and/or generated from said steps (c) and/or (d), and repeating said step (c) and/or (d) based, at least in part, on said updated input data.
3. A method as claimed in claim 2, wherein said updated input data comprises at least one type of feedback from an external source, said external source selected from the group consisting of: measured status of at least one business initiative to carry out an adopted decision strategy; market response to said at least one business initiative; an observed change in the economy and/or market over time; a competitive response to at least one said business initiative, embodied in a new rival business model; improved knowledge about decision factors; and improved knowledge about at least one behavior of said at least one said business entity.

4. A method as claimed in claim 1, wherein said input data further comprises a description of at least one economic environment and/or context.

5. A method as claimed in claim 1, further comprising receiving input data corresponding to at least one decision model framework selected from the group consisting of: macro-economic conditions at a given time; at least one vertical or horizontal market and/or at least one business operating within said vertical or horizontal market, and/or characteristics and/or relationships of said market and/or business; at least one good or service traded within said markets; at least one operating and/or proposed online Business-to-Business (B2B) marketplace; and at least one “what-if” scenario based on at least one assumptive trend, condition, behavior of a business entity, and/or event.

6. A method as claimed in claim 1, wherein at least one said projected behavior comprises data selected from the group consisting of: a demographic and/or relevant qualitative macro- and/or micro-economic characteristic of a target vertical industry and/or horizontal market and/or businesses that participates in said market; a macro-economic factor representing a domestic and/or global economic context in which said vertical industry and/or horizontal market functions; a factor depicting a structural and/or behavioral change occurring in an industrial market over time; an existing and/or proposed Internet-enabled marketplace and/or a service, business model, relative position, and/or competitive difference corresponding to said marketplace; an assumption that represents an alternative scenario for how said marketplace will evolve over time and/or alter a parent markets of and/or a business that participates in said marketplace; and historical market-, marketplace-, and/or business-specific transactional data.

7. A method as claimed in claim 1, wherein said projected behavior is adaptive and/or comprises at least one nonlinear trend.

8. A method as claimed in claim 1, wherein at least one of said plurality of scenarios comprises event data, said event data regarding at least one event capable of disrupting, 5 affecting, and/or altering the economic environment and/or the operation of at least one said business entity, said event data comprising a projected time of said event and/or a description of the nature of said event and/or the effects of said event.

9. A method as claimed in claim 1, wherein said event data is organized into episode data, said episode data comprising a sequence of causally related events.

10. 10. A method as claimed in claim 1, wherein at least one of said plurality of scenarios comprises at least one trend and/or assumption about projected behavior of at least one said business entity.

11. A method as claimed in claim 1, wherein said at least one business entity is a business entity selected from the group consisting of: an economy, a market, a company, a 15 line of business within a company, a B2B marketplace and an item of commercial trade comprising a product or service.

12. A method as claimed in claim 1, wherein said at least one attribute, trend, relationship, and/or projected behavior and/or event comprises at least one source of change selected from the group consisting of: a macro-economic trend; a market-specific 20 trend; an interaction between companies; a company's decision to pursue a strategic action; and a company's decision to alter its behavior and/or business activities based on its perception of economies, markets and/or B2B marketplaces.

13. A method as claimed in claim 1, wherein said step (c) is performed by a simulation method that treats each source of change at a particular instant of time as a discrete factor that can potentially impact at least one said business entity.

14. A method as claimed in claim 1, wherein said step (c) is performed by a simulation method that reflects a mass variation of at least one characteristic across a population of modeled business entities using at least one statistical projection of characteristic values across said population.

15. A method as claimed in claim 1, wherein said step (c) is performed by a simulation method that treats at least one population of model markets and/or companies and/or business units of said companies, and/or B2B marketplaces generated from said input data as independent active entities, capable of independent and/or autonomous behaviors, consistent with the principles of economics.

16. A method as claimed in claim 1, further comprising outputting to a user and/or writing to a storage medium at least one of said plurality of outcomes and/or at least a portion of said input data.

17. A method as claimed in claim 16, further comprising permitting a user to select and/or modify and/or retrieve and/or save to a storage medium at least one of said plurality of outcomes and/or at least a portion of said input data.

18. A method as claimed in claim 1, wherein said step (d) further comprises outputting data generated in said step (c) to a user, wherein said outputted data is selected from the group consisting of: aggregate statistics corresponding to a model and its population, derived from their simulated business interactions; detailed statistics corresponding to at least one modeled company's simulated business activities; data corresponding to a change

that takes place over the course of simulation; data corresponding to at least one simulated behavioral decision of at least one modeled company; and at least a portion of said input data.

19. A method as claimed in claim 1, wherein said step (d) further comprises outputting
5 data generated in said step (c) to a user, wherein said data is in an ASCII and/or comma delimited file and/or in a standardized format and/or said data is self-descriptive.

20. A method as claimed in claim 1, wherein said step (d) further comprises:

outputting at least one said outcome viewed from the perspective of a first said entity; and

10 outputting at least one said outcome viewed from the perspective of a second said entity.

21. A system for supporting strategic business decision-making comprising:

an object model wherein each said object comprises data and a behavior module; said data comprising attributes of said object; said behavior module comprising instructions for
15 manipulating said attributes of said object;

a database for storing model data and/or scenario data, said scenario data corresponding to a plurality of scenarios; and

a simulation engine, said simulation engine manipulating said object model and said scenario data to generate a plurality of projected outcomes to decision options.

20 22. A system as claimed in claim 21, wherein each said object corresponds to an actor or a business entity.

23. A system as claimed in claim 21, further comprising a user interface adapted to permit viewing and/or modification and/or deletion of at least one element selected from

the group consisting of: said object model, said object, said object data, the behavior of said object, said database, said scenario data, and parameters corresponding to said simulation engine.

24. A system as claimed in claim 21, further comprising an analysis engine adapted to analyze said plurality of outcomes under said plurality of scenarios and/or to receive raw data from said simulation engine and sort and/or filter and/or transform and/or aggregate and/or analyze said raw data.
25. A system as claimed in claim 24, wherein said analysis engine is further adapted to output at least one report to a user.
26. A system as claimed in claim 25, wherein said at least one report is selected from the group consisting of: aggregate statistics corresponding to a model and its population, derived from their simulated business interactions; detailed statistics corresponding to at least one company's simulated business activities; data corresponding to a change that takes place over the course of simulation; and data corresponding to at least one simulated behavioral decision of at least one company.
27. A system as claimed in claim 21, wherein said user interface enables users to select, create, add to, delete from, modify, and/or save said model objects.
28. A system as claimed in claim 21, wherein said user interface enables users to select and load models and scenarios; initiate, pause, resume, and/or halt said simulation engine; monitor ongoing simulated model behaviors; and/or save simulation run results.
29. A system as claimed in claim 21, wherein said simulation model is further adapted to output at least one said outcome viewed from the perspective of at least two entities.

30. A system as claimed in claim 21, wherein said database is accessible for reading and/or writing via structured query language (SQL) and/or extensible markup language query language (XQL).

31. A system as claimed in claim 21, further comprising a module adapted to extract the 5 metadata structure of said object model and generate instructions for constructing data definition instructions of said database for storing said model data.

32. A system as claimed in claim 31, further comprising a module adapted to load said data definition instructions to create said database.

33. A system as claimed in claim 31, further comprising an editor module adapted to 10 extend and/or customize at least one of said object metadata from said model.

34. A system as claimed in claim 33, further comprising a module for storing said object metadata in said database.

35. A system as claimed in claim 23, wherein said user interface is adapted to permit display and/or modification of at least one said object by manipulating said metadata.

15 36. A system as claimed in claim 21, further comprising a module for adding new attributes to said objects.

37. A system as claimed in claim 21, wherein a plurality of business entity behaviors is represented as a plurality of behavioral and/or decision rules.

38. A system as claimed in claim 37, wherein at least one said behavioral and/or decision 20 rule is adaptive and/or comprises at least one nonlinear trend.

39. A system as claimed in claim 23, further comprising at least one parser adapted to receive behavioral data from said user interface, wherein said parser and said user interface are adapted to permit a user to define a plurality of behaviors for model entities and/or

events, said parser being further adapted to convert said defined behaviors into behavioral rule modules.

40. A system as claimed in claim 21, further comprising an export module adapted to export output data generated by said simulation model, wherein said data is in an ASCII

5 and/or comma delimited file and/or in a standardized format and/or said data is self-descriptive.

41. A simulation engine for supporting strategic business decision-making comprising:

a parallel discrete event simulation shell comprising a module adapted to perform at least one distributed agent-based technique for simulating causal and intentional behaviors across populations of active model entities interacting with one another and their environment, a rule-based simulation engine and a Monte Carlo programming module, said 10 Monte Carlo programming module being adapted to perform stochastic distributions of values over populations of market entities.

42. A simulation engine as claimed in claim 41, wherein said parallel discrete event

15 simulation shell is adapted to receive event data, said event data regarding at least one event capable of disrupting, affecting, and/or altering the economic environment and/or the operation of at least one said market entity, said event data comprising a projected time of said event and/or a description of the nature of said event and/or the effects of said event.

43. A method for managing strategic decision outcomes comprising:

20 receiving decision option data;

projecting outcomes of said decision option data under a plurality of scenarios; and

analyzing said outcomes, thereby providing decision outcome data;

wherein said decision outcome data represents at least one consequence corresponding to said decision option data, and wherein said at least one consequence comprises at least one positive consequence and/or reward corresponding to said decision option data.

5 44. A method as claimed in claim 43, wherein said at least one consequence comprises at least one negative consequence and/or risk corresponding to said decision option data.

45. A method as claimed in claim 43, wherein said decision outcome data further represents at least one interrelation between at least two said consequences.

10 46. A method as claimed in claim 43, wherein said at least one said scenario comprises event data.

47. A method for supporting strategic business decision-making comprising:
analyzing a plurality of outcomes of decision option data projected under a plurality of scenarios;

15 wherein said decision outcome data represents at least one consequence corresponding to said decision option data, and wherein said at least one consequence comprises at least one positive consequence and/or reward corresponding to said decision option data.

48. A method for supporting decision-making comprising:

20 (a) prompting a user for entry of a plurality of input data corresponding to a decision modeling framework, said input data comprising at least one decision option comprising at least one assumption describing at least one actor, said assumption comprising at least one attribute, trend, relationship, and/or projected behavior;

(b) receiving said input data;

time based on said input data; and

(d) analyzing said plurality of outcomes.

49. A method as claimed in claim 48, further comprising receiving at least one update to

5 the input data supplied in said step (a), said update derived from at least one external source and/or generated from said steps (c) and/or (d), and repeating said step (c) and/or (d) based, at least in part, on said updated input data.

50. A method as claimed in claim 49, wherein said updated input data comprises at least

one type of feedback from an external source, said external source selected from the group consisting of: measured status of at least one initiative to carry out an adopted decision; response to said at least one initiative by other actors in said actor's decision environment; an observed change in said decision environment over time; improved knowledge about decision factors; and improved knowledge about at least one behavior of said at least one said actor.

15 51. A method as claimed in claim 48, wherein said input data further comprises a

description of at least one environment and/or decision context, said context comprising at least one condition selected from the group consisting of: economic, social, political, legislative, military, legal, geographical, demographic, medical, climatological, environmental, and engineering factors.

20 52. A method as claimed in claim 48, further comprising receiving input data

corresponding to at least one decision model framework selected from the group consisting of: conditions of said decision environment at a given time; a characteristic and/or

relationship of one of said actors; and at least one “what-if” scenario based on at least one assumptive trend, condition, actor behavior, and/or event.

53. A method as claimed in claim 48, wherein at least one of said plurality of scenarios comprises event data, said event data regarding at least one event capable of disrupting,

5 affecting, and/or altering the decision environment and/or the operation or behavior of at least one said actor, said event data comprising a projected time of said event and/or a description of the nature of said event and/or the effects of said event.

54. A method as claimed in claim 48, wherein said event data is organized into episode data, said episode data comprising a sequence of causally related events.

10 55. A method as claimed in claim 48, wherein at least one of said plurality of scenarios comprises at least one trend and/or assumption about projected behavior of at least one said actor.

56. A method as claimed in claim 48, wherein said at least one actor is selected from the group consisting of: a single individual, a group of individuals, an institution, and a man-
15 made artifact, device, product or system.

57. A method as claimed in claim 48, wherein said at least one attribute, trend, relationship, and/or projected behavior and/or event comprises at least one source of change selected from the group consisting of: a trend; a decision environment-specific trend; an interaction between actors; an actor’s decision to pursue a course of action; and
20 an actor’s decision to alter its behavior and/or activities based on its perception of the decision environment and/or other said actors.

58. A method as claimed in claim 48, wherein said step (c) is performed by a simulation method that treats each source of change at a particular instant of time as a discrete factor that can potentially impact at least one said actor.

59. A method as claimed in claim 48, wherein said step (c) is performed by a simulation method that reflects a mass variation of characteristics across a population of modeled actors using at least one statistical projection of characteristic values across said population.

60. A method as claimed in claim 48, wherein said step (c) is performed by a simulation method that treats a population of model decision environments and/or actors as independent active entities, capable of independent and/or autonomous behaviors.

61. A method as claimed in claim 48, further comprising outputting to a user and/or writing to a storage medium at least one of said plurality of outcomes and/or at least a portion of said input data.

62. A method as claimed in claim 61, further comprising permitting a user to select and/or modify and/or retrieve and/or save to a storage medium at least one of said plurality of outcomes and/or at least a portion of said input data.

63. A method as claimed in claim 48, wherein said step (d) further comprises outputting data generated in said step (c) to a user, wherein said outputted data is selected from the group comprising: aggregate statistics corresponding to a model and its population, derived from their simulated interactions among or between actors; detailed statistics corresponding to at least one actor's simulated activities; data corresponding to a change that takes place over the course of simulation; and data corresponding to at least one simulated behavioral decision of at least one actor.